STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

ILLINOIS INDEPENDENT TELEPHONE)	
ASSOCIATION)	
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)	
Petition for initiation of an investigation of)	Docket No. 00-0233
the necessity of and the establishment of a)	
Universal Service Support Fund in accordance)	
in accordance with Section 13-301(d) of The)	
Public Utilities Act.)	
)	
)	
ILLINOIS COMMERCE COMMISSION)	
On Its Own Motion)	
)	
Investigation into the necessity of and, if)	Docket No. 00-0335
appropriate, the establishment of a universal)	
support fund pursuant to Section 13-301(d) of)	
The Public Utilities Act.)	

DIRECT TESTIMONY

OF

ROBERT C. SCHOONMAKER

ON BEHALF OF

THE ILLINOIS INDEPENDENT TELEPHONE ASSOCIATION

- Q. Please state your name and business address.
- A. My name is Robert C. Schoonmaker, and my business address is P. O. Box25969, Colorado Springs, Colorado 80936.
- Q. By whom are you employed and in what capacity?
- A. I am a Vice President of GVNW Consulting, Inc., a consulting firm specializing in working with small telephone companies.
- Q. Would you please outline your educational background and business experience.
- A. I obtained my Masters of Accountancy degree from Brigham Young University in 1973 and joined GTE Corporation in June of that year. After serving in several positions in the revenue and accounting areas of GTE Service Corporation and General Telephone of Illinois, I was appointed Director of Revenue and Earnings of General Telephone Company of Illinois in May, 1977 and continued in that position until March, 1981. In September, 1980, I also assumed the same responsibilities for General Telephone Company of Wisconsin. In March, 1981, I was appointed Director of General Telephone Company of Michigan and in August, 1981 was elected Controller of that company and General Telephone Company of Indiana, Inc. In May, 1982, I was elected Vice President-Revenue Requirements of General Telephone Company of the Midwest. In July, 1984, I assumed the position of Regional Manager of GVNW Inc./Management (the predecessor company to GVNW Consulting, Inc.) and was later promoted to my present position of Vice President. I have served in this position since that time

except for the period between December, 1988 and November, 1989 when I left GVNW to serve as Vice President-Finance of Fidelity and Bourbeuse Telephone Companies.

- Q. What are your responsibilities in your present position?
- A. In my current position, I consult with independent telephone companies and provide financial analysis and management advice in areas of concern to these companies. Specific activities which I perform for client companies include regulatory analysis, consultation on regulatory policy, financial analysis, business planning, rate design and tariff matters, interconnection agreement analysis, and general management consulting.
- Q. Have you previously testified in regulatory proceedings?
- A. Yes, I have testified on regulatory policy, local competition, rate design, accounting, compensation, tariff, interconnection agreements, universal service, and separations related issues before the Illinois Commerce Commission, the Public Service Commission of Wisconsin, the Michigan Public Service Commission, the Iowa Utilities Board, the Tennessee Public Service Commission, the New Mexico Public Regulation Commission, and the Missouri Public Service Commission. In addition, I have filed written comments on behalf of our firm on a number of issues with the Federal Communications Commission (FCC) and have testified before the Federal-State Joint Board (Joint Board) in CC Docket #96-45 on universal service issues. In July, 1998 I was appointed by the FCC to

serve on the Rural Task Force to make recommendations to the FCC-State Joint Board in CC Docket #96-45 on USF issues for rural companies.

- Q. Who are you representing in this proceeding?
- A. I am representing the Illinois Independent Telephone Association ("IITA") and its member companies. The analysis I will be presented in this testimony will be for most eligible small Illinois telephone companies, a few of whom are not members of the IITA. Grandview Mutual, a very small company who is eligible for funding under the statute, has not provided the necessary information in order to be included at this point in time within the analysis that I will be presenting in this testimony.
- Q. Did you submit testimony in Phase 1 of these dockets on behalf of the IITA?
- A. Yes, I did. That testimony was introduced into evidence as IITA Exhibit #1 and had six Attachments. In this testimony, I will be referencing IITA Exhibit #1, Attachment #2, which is the HAI Model Description manual developed by the model developers, and IITA Exhibit #1, Attachment #3, which is the HAI Inputs Portfolio developed by the model developers. Those documents have previously been admitted into the record.
- Q. What is the purpose of your testimony?
- A. I will be presenting proposals of the IITA to establish an Illinois Universal

 Service Fund ("IUSF") under the provisions of Section 13-301(d) of The Public

 Utilities Act ("PUA"). Section 13-301(d) gives the Commission the authority to

establish an IUSF for those carriers who currently receive DEM and IUSF support pursuant to previous Commission Orders. I describe the specific provisions of the statute later in more detail in my testimony.

- Q. Is there an urgency to complete this proceeding in an expeditious manner?
- A. There is. The Order On Reopening issued by the Commission in Docket No. 98-0679 on December 20, 2000 that extended the Illinois DEM Weighting Fund calls for that Fund to be terminated by September 30, 2001. Support funds that the 29 small companies in the state have received from this Fund will be terminated. If these funds are not replaced, many of these companies will suffer substantial financial harm and may have to seek increases in end user rates to offset the loss of these funds. It is important that the Commission conclude these proceedings in sufficient time before the termination of the DEM Weighting Fund so that a new proposed Fund can be established and provide for a continuity of support funding.
- Q. Please comment on the scope of the testimony being filed today and the filings that will be made on April 20, 2001.
- A. This testimony is submitted on behalf of the IITA. In it, I will be presenting evidence regarding the IITA's position concerning the need for, and the establishment of, an IUSF and will be addressing statutory requirements of Section 13-301(d). I will also address other interrelated issues regarding potential regulatory changes that could impact the IITA member companies and which will

need to be addressed in these dockets in connection with the IUSF fund, or in some other manner, on an expedited basis.

On April 20, 2001, individual companies (not the IITA) who choose to seek IUSF support will be submitting information and testimony with regard to the simplified rate-of-return analysis and supplying the information requested by Staff. The rate-of-return analysis will be based on year 2000 results with much of the information to come from each company's Form 23A that is due to be filed April 2, 2001 or other suitable annual financial reports acceptable to the Commission. Those analyses have not yet been completed and neither the individual results nor the collective results (which would size the fund) are known at this time. However, based on a partial analysis of only certain companies using 1999 data, it is my present belief that the final size of any fund established for the next year will likely be no more than, and probably less than, the current total Illinois High Cost Fund and DEM Weighting Fund.

I intend to submit testimony on April 20, 2001 that will aggregate the results of the individual company filings so as to size the fund. Depending upon the results of the individual company rate-of-return filings, the IITA may be making additional recommendations and proposals in that set of testimony.

STATUTORY BACKGROUND

- Q. Please summarize the significant statutory provisions that are relevant to the establishment of the IUSF you are proposing?
- A. Section 13-301(d) states that the Commission shall investigate the necessity of, and if appropriate, establish a universal service fund for those carriers who

currently receive funding pursuant to the Commission's Twenty-Seventh Interim Order in Docket No. 83-0142 or the Commission's Orders in Docket Nos. 97-0621 and 98-0679. The statute further details the Commission's obligations in establishing a universal service fund.

- Q. Please provide a brief background of the Commission Orders cited in Section 13-301(d) of the PUA.
- A. The Twenty-Seventh Interim Order in Docket No. 83-0142 established the High Cost Illinois Universal Service Fund (IUSF). The establishment of the IUSF was part of the Commission's ongoing efforts to shift non-traffic sensitive ("NTS") plant costs out of per minute access charges while mitigating the impact on end users. The IUSF was contemplated in the Fourth Interim Order when the Commission authorized a shift in intrastate carrier common line charges to subscriber line charges over a five year period. The Commission recognized at that time that an IUSF would need to be established in order to reduce the amount of NTS costs shifted to end users. Specifically, the Twenty-Seventh Interim Order states that:

"The purpose of the IUSF is to mitigate the impact the complete phase out of intrastate NTS costs from interexchange carrier common line charges has on LEC costs which, because of their cost characteristics and size, have few short term alternatives to generate revenue sufficient to recover all such transferred NTS costs other than through significant end user increases." (Twenty-Seventh Interim Order, Docket No. 83-0142, p.2.)

Attached as IITA Exhibit #2, Attachment #1, is a list of carriers who currently receive support from the IUSF and the amounts they received in the year 2000.

The Order in Docket No. 97-0621 approved a Stipulation establishing a 1998 Dial

Equipment Minutes of Use ("DEM") Weighting Fund. The establishment of a DEM Weighting Fund was necessitated by the FCC's decision to shift federal DEM support from per-minute access rates to an explicit federal fund and the fact that this shift in federal support caused a corresponding decrease in intrastate access charges because of the ICC's mirroring policy. With lower federal access charges to mirror on the intrastate level, independent LECs would have experienced a large decrease in intrastate revenues unless an intrastate DEM Weighting Fund was established. The Stipulation was a one year agreement whereby the Funding Carriers; i.e., GTE, ICTC, Consolidated Communications, MCI, Sprint, Centel, Frontier International, Frontier Services and HTC Communications, agreed to a level of DEM funding that would be received by the companies represented by the IITA. The Order in Docket No. 98-0679, through an approval of a new Stipulation between the Parties listed above, extended the DEM Weighting Fund at a lower level of support until December 31, 2000. Pursuant to the previously mentioned Commission Order On Reopening issued on December 20, 2000, the Fund was extended for an additional period to end no later than September 30, 2001. Attached as IITA Exhibit #2, Attachment #2, is a list of the LECs who currently receive intrastate DEM support and the amount that they received in 2000 pursuant to the Stipulation then in effect. Data for 2000 is presented because it is the last full year that the DEM Weighting Fund will be in effect and because the rate-of-return analysis will be based on year 2000 results.

- Q. Could you comment briefly on the impact of losing the support levels that are shown on Attachment #1 and Attachment #2.
- A. Yes. The impacts would be significant, even severe, to both the companies and their customers. As can be seen from the Attachments, on average, the small ILECs receive \$9.59 per month per customer in support from these Funds. On an individual company basis, the amount of support varies widely based on individual company circumstances but ranges to levels in excess of \$50.00 per month per customer. The bulk of this support comes from the DEM Weighting Fund. Should this funding be lost, individual companies will need to increase rates. These local rate increases would need to be substantial for many companies (and in some cases massive) in order to allow the individual companies to continue to provide service to their customers and meet existing loan obligations. The impacts shown on these Attachments demonstrate why it is so vital for the Commission to reach a decision in these dockets before September 30, 2001 so companies will not suffer the financial losses associated with the termination of the DEM Weighting Fund.
- Q. Based on your understanding of the statute and the Orders you just summarized, who would be eligible to receive universal service support if the Commission were to establish an IUSF fund pursuant to Section 13-301(d) of the PUA?
- A. The carriers who would be eligible to receive support would be those carriers who currently receive IUSF or DEM support as listed on Attachments #1 and #2.

- Q. What findings must the Commission make pursuant to Section 13-301(d) (and implicitly 13-301(e)) prior to establishing an IUSF?
- A. Prior to establishing an IUSF, the Commission must:
 - define the group of supported telecommunications services that include universal service, including at a minimum those services as defined by the FCC;
 - identify the ILECs' economic cost of providing the supported services;
 - establish an affordable price, which shall be no less than the existing rates
 of the supported services;
 - identify support to be provided taking into account any federal universal service support received for providing the same services;
 - identify all implicit subsidies contained in rates or charges of ILECs,
 including interexchange access charges, and determine how such funds
 can be made explicit by the creation of the fund;
 - require that all costs of the fund be recovered from all local exchange and interexchange carriers certificated in Illinois on a competitively neutral and nondiscriminatory basis; and
 - not permit universal service support cost recovery from another
 certificated carrier for any service purchased and used solely as an input to
 a service provided to such certificated carrier's retail customers.
- Q. Does your testimony address each of the Commission's obligations listed above.
- A. Yes, it does.

SUPPORTED SERVICES

- Q. Section 13-301(e)(1) calls for the Commission to identify the services that should be supported by the IUSF. What are your recommendations in this regard?
- A. This section of the statute requires the Commission to include, at a minimum, all the federally supported services as services that should similarly be supported by an IUSF. In addition, this section allows the Commission to review existing services and rate structures and the needs of Illinois consumers and to add additional services beyond the federally supported services that it believes are appropriate. We recommend that the Commission adopt the FCC list of supported services at the present time. We make this recommendation both in view of the limited time in which the Commission has to complete this proceeding and because the IITA has no additional services that it would propose to add to the list at this time.
- Q. What services do the FCC include in the list of supported services?
- A. These services are contained in Part 54.101 of the FCC's Rules and include:
 - 1. Voice grade access to the public switched network
 - 2. Local usage
 - 3. Dual tone multi-frequency signaling or its equivalent
 - 4. Single-party service or its functional equivalent
 - 5. Access to emergency services
 - 6. Access to operator services
 - 7. Access to interexchange service
 - 8. Access to directory assistance
 - 9. Toll control services for qualifying low-income consumers
- Q. Are these the services that the IITA proposes be the supported services?
- A. Yes. I would note that the FCC has yet to identify the amount of local usage that should be supported.

DEVELOPING ECONOMIC COSTS

- Q. In developing the cost of providing the supported services, does the IITA feel that the identification of "economic costs" is the best way of developing these costs?
- A. Generally, the IITA members would prefer that the cost of providing these services be based on historical embedded costs, rather than forward-looking economic costs. The historical embedded costs of the company represent the actual investments and expenses that the company has and is incurring in order to provide the supported services. They are based on factual, rather than hypothetical, costs. Further, they represent the costs of providing the actual network and service quality that is in place as opposed to a hypothetical network and a perceived hypothetical service quality associated with that network. The IITA believes any recovery mechanism applied to a small company, whether it is used to establish universal service funding or to establish rates at large, is most appropriately based on the actual costs of the company and not the estimated costs hypothesized by a theoretical cost model. We believe that use of actual costs is the best way to ensure that revenues available to IITA member companies are sufficient and predictable enough to sustain and foster telecommunications investments and to provide service to their customers. This is particularly true in light of the Commission's requirement (Section 13-301(d) imposes no such requirement) that the companies demonstrate a need for IUSF funding based on their earnings on an embedded cost basis.

Nevertheless, the IITA recognizes that state statutes (Section 13-301(d)) specifically require the use of "economic costs" and have undertaken an effort to develop those costs using tools readily available in the industry.

- Q. In the development of costs that you present, have you developed individual cost studies for each IITA member?
- A. Yes and no. The studies I will be presenting are calculated at an individual company level and from that standpoint can be considered individual company studies. However, many of the inputs used in calculating the individual company results are national or statewide input factors and do not necessarily reflect an individual company's forward-looking costs. For this reason, the studies may also be considered as "proxy" cost studies rather than individual company cost studies.
- Q. Within the scope of the statutes, are there provisions for the use of proxy cost studies?
- A. Yes. Section 13-301(d) states:

"In establishing any such universal service support fund, the Commission shall, in addition to the determination of costs for supported services, consider and make findings pursuant to paragraphs (1), (2) and (4) of item (e) of this Section. Proxy cost, as determined by the Commission, may be used for this purpose."

The IITA believes this gives the Commission substantial latitude in reviewing and approving cost studies presented to it by small LECs to support compliance with IUSF requirements. While the studies I am presenting are calculated on an individual company basis, they rely on proxy input values that are consistently

applied to all companies though they may not specifically reflect the forward-looking costs of each individual company. In addition, because of the techniques used in the models to determine serving areas, access lines and the costs for network elements based on averaged inputs, the studies, at a very granular level such as the individual wire center or small company level, may not very accurately represent the costs of that company. In order to fully account for these deficiencies in the model, the IITA believes it is appropriate to consider the group of small companies in the aggregate as a proxy for the group and for its individual members. An analysis based on the group of companies as a whole, we believe, is within the scope of the statute regarding proxy cost studies. Furthermore, because of the deficiencies in the model, we would contend that it is not only within the scope of the statute but a more appropriate measure of the statutory tests than are the individual company results.

- Q. Why are you presenting individual cost study results in addition to the combined company results for the Commission's consideration in meeting the statutory criteria?
- A. Pursuant to the concerns expressed in the Commission's November 21, 2000 First Interim Order in these dockets that individual company cost study results were not presented in testimony in that phase of the case, individual cost study results for each company are presented. However, results for all the small Illinois companies combined are also presented for consideration under the proxy cost provisions of the statute. Because of the limitations of the forward-looking cost studies for

small telephone companies which I briefly discussed in my prior answer and which I will more fully explain hereafter, the IITA recommends that the Commission consider the costs for the group of companies as a whole as a proxy cost for each individual company in the event the company would not qualify for funding based on an individual company's cost study.

- Q. Since you are presenting studies in this testimony which are at least partially in the nature of proxy cost studies, would it be appropriate for an individual company to present a company-specific cost study for consideration by the Commission?
- A. Certainly. If an individual company has specific cost circumstances that it feels are not adequately addressed by the studies based on proxy input values, it would be entirely appropriate for the Commission to consider an individual cost study presented by a company. Inherently, the models currently available to assess economic costs are theoretical tools that produce results which may or may not produce results reflective of individual circumstances. The IITA has chosen to use the HAI model with a consistent set of input values for all the companies in an effort to minimize the costs of developing studies, and hopefully, minimize the controversy that needs to be addressed by the Parties and the Commission in this proceeding. However, the IITA, in no way, means to limit the ability of individual companies to file individual company cost studies now or in the future.

- Q. In preparing to develop economic cost studies for IITA members, what steps did you go through in reviewing alternatives for developing these studies?
- A. During 1999, in recognition of the statutory requirements to develop economic costs, several IITA members requested GVNW to review available alternatives to develop such costs. Studies were performed for these companies using three alternative models that were available for use by small companies. An evaluation of these models was made for each of the companies. Results of each model were provided to the companies; and an overall evaluation on the ease of use, production of necessary results and acceptability of the models were made. After reviewing the three available models, GVNW recommended to these companies and to the IITA members at large that the HAI Model 5.0a be used as the model tool, with appropriate adjustments to certain of the model inputs.
- Q. Can you comment briefly on the two models that were not chosen.
- A. Yes. The first was the Benchmark Cost Proxy Model ("BCPM") sponsored by Sprint and U.S. West before the FCC in its universal service docket and in many state proceedings. While the BCPM Model is generally supported by ILECs around the country, and in my judgment, produces a more appropriate representation of loop costs, GVNW felt that use of this model would make it more difficult to obtain results for individual access elements since this model does not have built-in formats for developing costs at the access element level. We also recognized that use of the HAI Model, supported by IXC parties to the proceeding, might reduce the level of controversy regarding the model used to

develop economic costs. For these reasons, we recommended the HAI Model rather than the BCPM Model.

The second model was a model developed by Parrish Blessing and Associates. This model has not been presented to the FCC but has been used in some state proceedings. The model is less sophisticated internally than the HAI and BCPM Models and relies heavily on the use of individual company engineering studies to develop inputs to the model. The development of these inputs is a fairly expensive and laborious process. Simply put, we were concerned about the ability of small companies to conduct such supporting studies and the costs associated with developing inputs to use in conjunction with this model. We were also concerned about the additional controversy that might surround its use since it has not had the same scrutiny as the other models, and thus, we recommended against using this model at this time.

- Q. Did the HAI Model generally produce the highest results of the three models?
- A. No. Using the HAI default assumptions, the HAI Model generally produced the lowest cost estimates of the three models that were considered.
- Q. Did you consider using the FCC's Synthesis Model as a possible alternative?
- A. Yes, it was considered for this phase of the proceeding. There were two significant differences between the Synthesis Model and the HAI Model that caused me not to choose the Synthesis Model. In developing costs for interstate USF purposes, the FCC modified the treatment of Network Operating Expenses,

Customer Operations Expenses and Corporate Operations Expenses in the HAI modules so these cost inputs are hard coded into the program and are accumulated in the Network Interface Device cost element. Thus, if one uses the Synthesis Model, all of these major expenses would be allocated to the loop cost element and none would be allocated to the access cost elements that must be considered in this proceeding pursuant to a statute. That is sufficient reason to reject the use of the Synthesis Model. Another reason for not using this model is the cost of doing so. While the model and its underlying data have been made available for a nominal fee for use in the FCC's USF docket, the license agreement specifically prohibits the use of the underlying data in a state proceeding without paying a per company fee for the use of the data for state proceedings. Use of the data in a state proceeding would require the payment of tens of thousands of dollars for the small companies.

- Q. Can you briefly summarize the reasons why you have chosen to develop the economic costs presented in this case using the HAI Model.
- A. Yes. First, the model has been widely available throughout the industry and has been carefully studied by industry participants, the FCC and many state

 Commissions. Both its strengths and weaknesses are known and have been evaluated. Second, the parties most likely to have concerns about this proceeding are the interexchange carriers—the supporters of the HAI Model. By using the HAI Model, we hoped to minimize the controversy in this proceeding, thus making it possible for the Commission to conclude the proceeding in a timely

manner. Third, the HAI Model produced results in formats that are readily available to identify both the cost of universal service and the cost of individual access cost elements. Fourth, because the model includes default input values necessary to produce cost results for each company, the cost of developing appropriate, or at least acceptable, cost inputs to run the model are minimized. Fifth, by reviewing and modifying a relatively small number of inputs, we felt we could develop adequate estimates of economic costs to satisfy the statutory requirements.

- Q. Do you have any misgivings or concerns about using the HAI Model to develop economic costs for the IITA members?
- A. In spite of the fact that I recommended to the IITA members that they use this tool as the best available to develop the costs they needed to for this proceeding, I have concerns about the validity of the results of the HAI Model I am presenting.

 These concerns include:
 - A number of general concerns about using proxy cost model tools to develop "economic costs" as opposed to using actual embedded costs of the company. One of the concerns in this regard is the potential discontinuity between using "economic costs" for developing the costs of certain access elements, for example, while using historical costs to develop an overall company revenue requirement.
 - A lack of sufficient time and resources to fully explore all the proposed default inputs. While I proposed a number of changes to these inputs,

there are others, such as the cost of cable and digital loop carrier equipment, that we have not had time to test against the forward-looking costs of such items for small companies in Illinois. I am concerned that the costs may not reflect the economic costs of the companies in all respects.

- A general concern about testimony presented in other proceedings that I have reviewed has led me to the conclusion that the HAI Model tends to understate the amount of loop plant needed to build a real network.
- 4) A concern that the use of broad inputs and generalized formulas for all companies, rather than specific inputs for individual companies, tend to mask unique circumstances of individual companies, which cause substantial differences in costs in the real world.
- A concern that use of models with input values that are difficult to verify and easy to manipulate may lead to the use of models to develop cost numbers that have questionable validity but may cause substantial company and customer impacts.
- A concern that the model results for small companies from models like the HAI Model produce results that vary widely from comparable actual data and in a manner inconsistent with forward-looking costs raising substantial questions regarding the validity of the results for individual small telephone companies. If these results are used solely on an individual company basis to specifically determine eligibility for IUSF funding, anomalies in the studies related to individual companies may

- result in either too much, or too little, funding for the individual companies.
- A concern that results from the model are likely to be less accurate for smaller geographic areas, such as individual exchanges or small companies with a few exchanges, than they are for large companies, such as Ameritech or Verizon who have hundreds of exchanges. This concern is due both to techniques used to generate customer locations and data in the model and to a recognition that the law of averages leads to offsetting impacts between individual areas within a large group of exchanges that may not occur in a small company or a single wire center. A review of the access lines developed by the model compared to actual company lines, for example, shows significant differences on an individual company level.
- Q. Is there support for your concerns in this regard in proceedings before the FCC?
- A. Yes, there is. While the FCC adopted its Synthesis Model for use in developing costs for federal universal service purposes for non-rural companies, it had concerns about the validity of that model for rural companies. To more fully evaluate these models and policies regarding universal service for rural companies, the FCC appointed a Rural Task Force ("RTF") consisting of 18 representatives of a wide variety of stakeholders in the federal USF process. The RTF's unanimous recommendation, which was filed with the FCC in September, 2000, rejected the use of the current Synthesis Model for use for rural companies

for federal universal service determination. That recommendation was approved unchanged by the federal Joint Board on Universal Service and is awaiting final FCC action. The RTF White Paper #4, A Review of the FCC's Non-Rural Universal Service Fund Method and Synthesis Model for Rural Telephone Companies, provided an extensive analysis of the Synthesis Model and its use for rural telephone companies. This Paper provided the factual support that led to the RTF Recommendation. While that analysis was completed on the Synthesis Model, rather than the HAI Model, much of the analysis and conclusions would be applicable to the HAI Model as well since the Synthesis Model incorporates much of the HAI Model logic. Of particular significance is this observation made by the RTF on page 10 of the above-referenced White Paper.

"The aggregate results of this study suggest that, when viewed on an individual rural wire center or individual Rural Carrier basis, the costs generated by the Synthesis Model are likely to vary widely from reasonable estimates of forward-looking costs. In fact, much of the data analysis suggests that the model results tend to be in the high and low extremes, rather than near the expected results for the area being analyzed."

- Q. Given these concerns, do you still support the economic costs that you have developed?
- A. Yes. Given the statutory requirements in Illinois and the current state of tools that are available to develop such cost results at a reasonable cost to the companies, I believe the costs developed are adequate representations of the economic costs of these companies for meeting the statutory requirements. However, I specifically have concerns about giving too much reliance to individual company results when

those results reflect a single exchange or only a few exchanges. I believe it is incumbent on the Commission to not only review the individual company results but to review and use the results of these studies for the group of companies as a whole under the proxy provisions of the statutes in making its determination whether the statutory requirements are being met. I believe this is particularly important in light of the Commission's clear direction that ultimately the level of funding should reflect company need as determined by its overall revenue requirement using embedded costs.

OVERALL DESCRIPTION OF THE HAI MODEL

- Q. Can you briefly describe the historical background of the HAI model.
- A. The HAI model was initially known as the Hatfield Model, developed by Hatfield Associations, a consulting firm in Colorado, at the request of AT&T. The model was developed with the intent of providing a tool to develop the forward-looking cost of the telephone network throughout the United States as the cost basis for universal service support and to develop the estimated cost of unbundled network elements ("UNEs') for interconnection proceedings under Section 252 of the Telecommunications Act of 1996. As the model faced scrutiny in various state and federal proceedings, it underwent continued development and modification through a series of versions over a several year period of time. Generally, the later versions were more sophisticated in the cost development methods and techniques than were earlier versions of the model. Version 5.0a of the model, which we are proposing to use to develop the costs presented in this proceeding,

was the latest version presented in formal comments to the FCC in CC Docket #96-45, the federal USF proceeding.

- Q. Can you briefly describe the overall design of the model.
- A. Yes. The model is designed in several different modules that interact and are interconnected to produce the overall model results. The modules develop the costs for various network elements and for the overall cost of the firm. Modules include a module to develop the cost of distribution and feeder plant, a module for developing the cost of switching and interoffice plant, a capital cost module and an expense module. Results of all these modules are fed into a series of model output reports. A much more complete description of the model design is included in the Model Description manual developed by the model developers and included as IITA Exhibit #1, Attachment #4 to my Direct Testimony filed in Phase 1 of this proceeding.
- Q. Can you briefly describe the default model inputs?
- A. Yes, The HAI model has well over a thousand different user changeable model inputs, including physical equipment characteristics, cost relationships to geographical factors, traffic characteristics, unit costs of telephone plant, costs of installing telephone plant, depreciation factors, capital costs and expense ratios.

 To assist users in being able to use the models quickly, the developers have populated the model with default values that based on their research, judgment and evaluation represent appropriate values for each input element. These values

are known as the default input values. When running the model, the user can either use these default values or individually change as many of the values as the user believes are appropriate. IITA Exhibit #1, Attachment #5, to the Direct Testimony that I filed in the first phase of this proceeding, the HAI Inputs Portfolio, is a document developed by the model developers which describes each individual input item, the default value and the model developers' rationale and support for adopting the particular default value.

DESCRIPTION OF DEFAULT INPUT CHANGES

- Q. In the cost studies you present in this testimony, have you used the default values exclusively as the input values?
- A. No. While we have used the default values for a large portion of the inputs, we have not used them exclusively. Based on prior experience in other states and at the national level using the models and based on testing individual inputs in conjunction with the cost development for this case, I have modified a number of the default inputs.
- Q. Can you make some general observations with regard to why you modified some of the default inputs?
- A. Yes. There were a variety of reasons for modifying various inputs, which I will describe in detail later in this testimony. In some cases, inputs were modified to, in my opinion, reflect the operation of rural companies as compared to the large urban Bell Operating Companies whose operations are generally reflected in the

default inputs. In other cases, inputs were modified to reflect the specific circumstances in Illinois rural areas as compared to the wide variety of geographic conditions throughout the United States. In other cases, inputs were modified to reflect judgmental differences with the HAI Model proponents regarding the forward-looking cost characteristics of certain inputs.

- Q. Did all of the input changes you propose increase the universal service cost results?
- A. While many of them resulted in universal service cost or access cost increases, others resulted in universal service cost or access cost decreases. In each case that changes were made from the default inputs, they were made with the intent of better reflecting the forward-looking costs of the IITA member companies based on circumstances within Illinois.
- Q. Have you prepared a description of the default inputs that the IITA has changed?
- A. Yes. IITA Exhibit #2, Attachment #3, is a document outlining the input items that the IITA changed from the default values in its development of economic costs for this case. IITA Exhibit #2, Attachment #4, is an output report from the HAI Model showing the specific model inputs changed and the specific values used for each of these inputs. In the following section of my testimony, I will discuss in greater detail the reason for each of the changes made in the default inputs.

HAI INPUT CHANGES

- Q. Would you please describe the rationale for changing the plant type assumptions as outlined in Item #1 of Attachment #3.
- A. Yes. The HAI Model develops costs of distribution and feeder plant in nine different density zones. One of the series of input items in these density zones are inputs to designate the type of plant (aerial, buried or underground) that is used for feeder and distribution plant. There is a similar input for the type of plant in interoffice facilities, as well. The default inputs for these items vary between density zones based on the model developers' estimates of the type of plant built in these zones on a nationwide basis. Even in the most rural zones, the default inputs assume that a substantial amount of aerial plant will be constructed. In Illinois, based on a number of factors related to geography, weather and cost of construction, it has been standard practice in the smaller companies in the state to build buried plant for distribution plant, feeder plant and interoffice plant. As one travels through the rural areas of the state served by the small ILECs, it is relatively rare to see any aerial plant. In most areas, buried plant is used exclusively, although there are some in-town areas where underground plant is constructed in some circumstances.

Based on these observations, the IITA has developed its costs by changing the model inputs in all appropriate places to reflect a larger percentage of buried plant as the method of outside plant construction from that used in the default assumptions. In the four lowest density zones, buried plant has been assumed to

be 95% of the plant constructed, with aerial plant the remaining 5%. In the fifth and sixth zones, 85% buried, 5% aerial and 10% buried plant has been assumed. No changes have been made in the eighth and ninth density zones because none of the small company lines fall within these zones. We believe this is more reflective of Illinois circumstances than are the national default inputs.

- Q. Why have you set the Fraction of Buried Plant Available for Shift parameters to zero as discussed in Item #2 of Attachment 3?
- A. These inputs are included in the model to allow the model to change the assumption regarding the amount of buried plant that would be constructed, as discussed in my previous answer, based on internal cost calculations made by the model. The model would substitute aerial plant for buried, if based on model calculations, aerial plant was less expensive. The IITA is proposing that this value be set at zero so the model reflects the buried plant construction types as discussed above. Some of the factors that lead to the large proportion of buried plant construction in Illinois may not be fully reflected in the default cost assumptions; and without this change, the model might not construct the full level of buried plant we believe is appropriate.
- Q. Item #3 of Attachment #3 discusses changes made in the structure sharing default assumptions. What is meant by structure sharing?
- A. In the HAI Model, the costs of the cable and its installation are separated from the cost of the structures (poles for aerial cable, trenches and plastic tubing for buried

cable, and conduit for underground cable) built to "carry" the cable from one location to another. The structure costs are developed using separate input amounts and are calculated separately. The structure sharing assumptions are built into the model to reflect circumstances where these structures may be able to be used by a utility other than the telephone company; and the costs of the structures may be borne by these other companies, thus reducing the effective cost to the telephone company.

- Q. Can you give some real world examples where structures might be shared?
- A. Yes. The most common example is probably with the use of pole lines. In many locations, particularly in town locations, one utility builds a pole line and other utilities rent space on the poles to place their own facilities. Where an aerial plant is used by both electric and telephone utilities, they frequently share a single pole line. In addition, in many "in-town" situations, a cable TV company may also place its facility on some of the same pole lines.

In some new subdivision construction, trenches dug for utilities may be shared by electric, telephone and cable TV companies. When electric facilities are involved in sharing of trenching, there is typically a significantly increased cost to the cost of the trench to meet code requirements for separation of electric cables from telephone and cable TV facilities.

In urban locations, conduit facilities may be placed to service multiple utilities in order to minimize the street disruption of placing additional facilities in the future and to maximize the use of below street surface land space.

- Q. Can you, in general terms, describe the conceptual assumptions underlying the HAI default structure sharing assumptions?
- A. Yes. There are several key conceptual assumptions that are inherent in the HAI default assumptions regarding structure sharing. First, the modelers assume that not only is the telephone network being hypothetically totally reconstructed but the electric, cable TV and competitive telecommunications services networks are being constructed at the same time so that structure sharing of trenches, conduit, etc. can take place. Second, the modelers assume that, in the future, there will be high motivations for these various utilities to share structures and build facilities using the same kind of plant in the same areas. Third, the modelers assume that the cost of structure construction will be unchanged from typical telephone plant construction even with the addition of other utility facilities associated with the structure. While this may be reasonably true for aerial construction, it is not true for buried construction where code requirements for buried electric service requires significantly deeper construction for electric plant than for telephone plant.
- Q. Can you describe the specific assumptions encompassed in the HAI Model regarding structure sharing for buried plant?

- A. Yes. The HAI Model default assumptions assign 33% of the cost of the structure to the telephone company for buried structures in the lower density bands. This presupposes that in these density bands, buried telephone company plant will be accompanied by a buried electric facility and a buried cable TV facility, with no increase in the cost of the facility because of the presence of the other two facilities.
- Q. Do you believe this assumption is at all realistic?
- A. No. My opinion is that it has little relationship to reality. To put this assumption into perspective, let me first indicate for the four lowest density bands the size of an average "lot" that would be inherent at the maximum level of the density band assuming all households had equal size lots. They would be as follows:

Band 1	0-5 lines/sq. mile	128.0	acres
Band 2	6-100 lines/sq. mile	6.4	acres
Band 3	100-200 lines/sq. mile	3.2	acres
Band 4	200-650 lines/sq. mile	.98	acres

From my experience in talking with clients about their communities throughout the mid-western and western parts of the country, there would be no cable TV provider in at least the first two density bands; and the provision of cable TV service in Band 3 areas would be spotty. There would probably be a cable TV provider in many, though not all, of the Band 4 areas. However, in these areas, a large portion of the cable TV is aerial and constructed using the electric poles. The likelihood of the cable TV provider sharing buried structures with the telephone company in any of these areas is remote.

As to the electric utilities, my experience in driving through rural areas is that electric service is provided primarily by the use of aerial plant while the telecommunications facilities use primarily buried facilities. My impression is that there are strong economic reasons why electric plant is generally aerial while the telephone plant is buried. I do not see any evidence to suggest that in rural areas this difference in plant construction will suddenly change in the electric industry. Thus, there is little reason to believe that there will be any appreciable structure sharing with the electric industry.

- Q. Based on your observations, what assumptions has the IITA proposed regarding structure sharing?
- A. Based on our perception of the limited to non-existent likelihood of sharing buried structures, the IITA is proposing that the structure sharing for buried and underground plant for the lower seven density zones be set at 100%, that is the full cost of the buried structures are assigned to the telephone company. For aerial cable, a 100% structure sharing assumption is assumed for the first three zones, but a 50% assumption is used in Zone 4 and higher where telephone company aerial cable, if built, frequently shares poles with the electric company.
- Q. Why is the IITA proposing to change the end office switching investment input, Item #4 on Attachment #3?
- A. Our analysis indicates that the default input value is not representative of the cost of end office switching equipment for small companies and small switches. The default switching input value that is used by the HAI modelers is based on an

analysis of switch costs for larger companies (Bell Operating Companies and GTE) that were publicly available. The input value is used in a fairly straight line formula based on number of lines. In viewing results of the default analysis, it is clear that the input does not correctly estimate the cost of switching for small offices.

We also did an analysis comparing the default model results with the actual investments incurred by companies for COE switching in Illinois. With the default inputs, the COE switching investments produced by the HAI Model were slightly more than 50% of actual COE switching investments for the small Illinois companies. I believe that is a strong indicator that the default input is generating inappropriate results for these companies.

- Q. Are comparisons between model results and actual investments and expenses always an appropriate test of the model results?
- A. No, not always. Since the model is developing a cost for a forward-looking network, comparisons would not be valid if the network elements being developed are of a different design than that actually being used. Since the model is generating forward—looking costs, there may be differences between the model and actual results because of differences in cost (either up or down) when actual plant was purchased as compared to the forward-looking cost of the plant. There may also be differences between costs developed by the model and actual costs because the model does not develop costs for all of the functions that an

- actual company may be performing. In making comparisons between model results and actual results, all of these factors need to be taken into account.
- Q. What is your assessment of the validity of comparing the cost of central office switching equipment from the model to actual costs?
- A. This is one area where I believe comparisons are relatively meaningful. If one reviews the forward-looking technology for switching, one finds it includes digital central office switches, both host and remote, that are generally equipped with currently required functions and features including SS7 signaling capability. When one reviews the switching equipment actually in use in the small Illinois companies, one finds digital central office switches, both host and remote, that are equipped with these features and functions. These switches include such recently required capabilities as interchangeable NXX codes, four-digit CIC code capability, intraLATA presubscription, and in most cases, SS7 signaling.

 Companies will be upgrading the switches during the coming year to provide features required by the Communications Assistance for Law Enforcement Act ("CALEA").

Most of the small companies in Illinois are using at least their second generation of digital switching equipment. The equipment is relatively new (probably on the average between four and eight years old) and has been upgraded since installation, as needed. While it is generally believed that the cost of switching equipment has been falling over time, the falling costs of hardware have been at least partially offset by increasing costs of switching software. Overall, it is my

belief that the model costs for forward-looking COE switching equipment should be relatively close to, though possibly somewhat less than, actual costs. In my mind, the nearly 50% difference between the model and actual costs for this equipment indicates that the model costs do not truly reflect the forward-looking costs of this equipment.

- Q. What are you proposing as the default input for central office switching investment?
- A. The default input for this value is \$416.11 per line. Based on my review of this factor and the resulting investment to actual investments, I am recommending that the value be increased to \$658.25 per line. Using this value, the COE switching investment for the Illinois companies produced by the model results in an amount approximately 94.5% of the actual investment in 1998.
- Q. Why have you increased the input value related to the percent of interLATA and intraLATA traffic switched at the tandem switch as indicated in Item #5 of Attachment #3?
- A. The default value for this input is 20%, indicating that 20% of interLATA and intraLATA traffic is switched at a tandem switch and 80% of the traffic is trunked directly from an end office to an interexchange carrier. While I can't comment on the validity of the assumption on a nationwide basis, for the small Illinois companies, a large portion of their interLATA and intraLATA traffic is switched through a tandem switch rather than being trunked directly from an end office to an interexchange carrier. In some cases, interexchange carriers do have direct

trunk groups to individual small Illinois companies. An analysis of a number of the companies indicated that about 10% of the traffic for those companies was carried on direct trunks. The value for these inputs have, therefore, been changed to 90%.

- Q. Can you please explain your rationale for changing the default assumption related to Item #6, on Attachment #3, the percent of Total Interoffice Traffic Fraction?
- A. Yes. This factor estimates the total portion of the traffic originated in the central office that has to be switched to a second switching site for termination of the traffic and is a significant factor in developing the cost of interoffice facilities. It is also used in conjunction with estimates of toll traffic to determine the portion of local traffic that is switched on an interoffice basis and impacts the cost of local service. For large urban companies, this may represent traffic that is switched between multiple wire centers in a single exchange. For rural companies, it would represent traffic that is commonly designated as Extended Area Service ("EAS") traffic that is switched between exchanges. Using the default assumptions, the model estimates that 48.69% of local traffic is interoffice traffic and develops and assigns costs to the USF cost to account for this usage.

Based on a review of data from a majority of the small cost study companies in Illinois, we have determined that approximately 22% of their local traffic is EAS traffic. We have thus reduced the default total interoffice input percent from 65% to 45%. This produces a revised local interoffice traffic percentage of 19.4%, a

- value much more representative of small Illinois company operations. The results of this change are to significantly reduce the USF cost developed by the model.
- Q. Do you agree with the default assumptions that develop the cost of capital as indicated in Item #7 of Attachment #3?
- A. No. I believe the cost of capital assumptions in the default scenario are not appropriate. The default assumptions assume a 55% equity/45% debt ratio with a cost of debt and equity generating an overall cost of capital of 10.01%.

 Generally, the small companies in Illinois have equity/debt ratios that are higher than the default assumption and higher than the larger companies in Illinois. In discussions with the ICC Staff regarding the earnings analysis to be included in this case, the Staff and the IITA have agreed to use a cost of capital that reflects a debt/equity ratio of 40%/60%, a current cost of debt of 9% (pre-tax) and a cost of equity of 15.0% for the majority of the small companies. Use of these ratios provides an overall cost of capital of 12.6%. For the Frontier companies, a cost of equity of 13.8% was used. The lower cost of equity for Frontier recognizes that it has greater access to capital markets at a national level giving it greater liquidity and thus a lower cost of equity.
- Q. Item #8 on Attachment #3 discusses changing the default factor for Network Operations Expense. Would you discuss why you are proposing a change in this item.
- A. Yes. Network Operations Expense encompasses the following accounts in the Uniform System of Accounts:

Network Operations Expense	6530
Power Expense	6531
Network Administration Expense	6532
Testing Expense	6533
Plant Operations Administration Expense	6534
Engineering Expense	6535

Expenditures in these areas for small companies differ significantly from larger companies. For example, the plant administration expense account includes the cost of overall supervision of plant operations, including overall planning, developing methods and procedures, developing plant training and coordinating safety programs. The account excludes immediate or first level supervision which is included in the plant specific accounts. In most small companies, the second level of supervision is the company manager, consequently, most small companies have very little plant administration expense. Engineering expense is generally less in small companies since most engineering is on a specific project basis rather than of a general nature. Network administration activities in small companies do not include extensive network control facilities because their networks are limited.

In the HAI Model, Network Operations Expense is generated based on a composite level of expenses for the ARMIS reporting companies on a per line basis. The model then multiplies this expense level by the Network Operations Expense factor to arrive at a final estimate of Network Operations Expense. The HAI modelers in the default assumptions have assigned this factor a 50% value, essentially indicating that forward—looking Network Operations Expenses would/should be half of the current level. Their rationale for doing this is summarized as follows:

"....these costs are artificially high because they reflect antiquated systems and practices that are more costly than the modern equipment and practices that the HAI Model assumes will be installed on a forward-looking basis. Furthermore, today's costs do not reflect much of the substantial savings opportunities posed by new technologies, such as new management network standards, intranets, and the like."

Because small companies have very different circumstances and do not have many of the systems typical in large companies, it is our belief that the types of forward-looking savings the modelers are anticipating for large companies will not, nor cannot, be achieved in small companies. We are, therefore, proposing that the Network Operations Expense factor be set at 100% rather than 50%. Use of this factor produces modeled Network Operations Expenses that are somewhat less than, but relatively close, to the expenses currently encountered by the small Illinois Companies.

- Q. Please describe the changes you made in local number portability cost as described in Item #9, Attachment #3.
- A. The default inputs assume a cost of \$0.25 per line per month to recover the cost of implementing local number portability. Since none of the small Illinois companies have implemented this function, we have reduced this input to zero.

 This reduces the calculated USF cost by a similar amount per line.
- Q. Item #10, Attachment #3, describes changes in the Billing and Bill Inquiry input.
 Would you please describe this input in great detail and your rationale for changing it.

A. Yes. This input is intended to capture the customer operations costs of providing local service billing, collecting, bill inquiry and other inquiries regarding the provision of service. The provision of these services differ in a number of respects between large and small companies. Many of the customer contact functions for large companies are performed in centralized centers by relatively large work groups. With these work group sizes, there may be opportunities to adjust the work group to fluctuating workloads on an hourly or daily basis.

Billing functions are typically spread throughout the month with multiple billing cycles. Typically, the data processing and bill processing functions are performed with in-house computer assets and in-house personnel.

In small companies, these functions are generally performed by only a few individuals with staffing required during the normal business hours to provide service availability to customers. There are relatively few opportunities to adjust work group levels to variations in the customer contact workload. Billing is typically performed once a month so there are greater variations in the work flow than in larger companies. Oftentimes, service bureaus are used by small telephone companies, at a minimum, to provide software support and often provides full bill processing functions using investments made by the service bureau. Thus, the expense and investment levels of small companies may vary significantly from larger companies.

In order to test the validity of the default assumption, GVNW undertook a study of the customer service expenses of a number of its cost study clients to separate the costs associated with local services and billing from those associated with toll and carrier billing functions. Using cost study information from separations studies, which separate such expenses into a number of different categories by work functions, GVNW developed an average cost per line for those companies of the local billing functions. The results of that study indicated a \$3.62 cost per line for the local billing and customer contact functions. We believe this result is more representative of the cost of these functions in small Illinois companies and have thus incorporated this estimate in the economic cost studies we have performed.

- Q. Item #11, in Attachment #3, relates to carrier-to-carrier billing costs. What is your rationale for changing the default level for this item?
- A. Carrier-to-carrier billing costs include the ongoing cost of responding to IXO service change requests and the cost of rendering Carrier Access Billing System ("CABS") bills to individual carriers for their use of the local exchange network in providing toll services. These bills are rendered at an individual wire center level to each interexchange carrier, mostly on a monthly basis. With average wire center sizes for the small companies at a significantly smaller level than the average for large Bell Operating Companies, it is not surprising that the cost of this function is different for small companies.

The default input for this item is \$1.69 per line per year. A study of these costs using data available from a group of the Illinois cost companies' cost separations studies indicated that, on average, these costs are \$16.83 per line per year. This

value has been used as the input for this cost item. Within the model, this value only impacts the costs of the access elements and does not affect the local service cost.

- Q. Item #12, Attachment #3, describes changes in the model inputs for central office switching and transmission expense. Please describe the derivation of the default input values and the values that the IITA has used in its development of forward-looking costs.
- A. In developing expenses for most of the plant specific expense categories, the HAI Model uses recent ARMIS data from around the country to develop ratios between current expenses and investments as a basis for developing projected forward-looking expense levels. However, in the case of central office switching and transmission expense, this data is overridden by two alternative expense ratios, one for each investment category. The input levels for these items are based on a 1993 incremental cost study performed by New England Telephone Company in New Hampshire and are considerably lower than current levels experienced even by the Bell Operating Companies.

The IITA inputs are developed based on current ratios of expenses to investment for these expense/investment categories for the small Illinois telephone companies. Since the type of investment included in these accounts is generally reflective of forward-looking technology, it is reasonable to expect that the ratios

currently experienced by the Illinois companies are reflective of the forward-looking costs they can expect to experience.

ECONOMIC COST STUDY RESULTS

- Q. Using the input changes you have described plus the default inputs for the remaining items, have you completed "economic cost" studies using the HAI 5.0a Model for each of the small companies in Illinois?
- A. Such studies have been completed under my direction. The results of these studies are summarized in IITA Exhibit #1, Attachment #5. Attachment #5 shows that the monthly USF cost per line varies from a level of \$47.76 to \$273.89 for the individual companies. The weighted average of these costs across all the companies (using actual company access lines) is \$91.67. The weighted average cost is the proxy cost, as that term is used in the statute for the total group of companies.

AFFORDABLE RATE

- Q. Have you developed a proposed "affordable rate" for each of the companies?
- A. Yes, that has also been developed under my direction. Since the time for preparation and prosecution of this case is limited and because the proposal for IUSF funding is ultimately limited by the individual companies' earnings levels on an embedded cost basis, the IITA is proposing that the "affordable rate" be established at the minimum level allowed by the statute--the current rates that are in effect. This will provide a rate within the limits of the statute but will avoid the

necessity for a prolonged discussion of alternative methods of determining an "affordable rate". The IITA's proposal is specifically that the affordable rate be established at the current rate level for basic service (including any state carrier common line surcharge rates and EAS rate elements) for the class of service being considered plus any additive rates for touch calling service. To simplify the calculation in my Attachments, the level displayed is the weighted average rate for residential and business service.

- Q. The statute requires that before a company may receive support from an IUSF, the company must demonstrate that the economic cost is greater than the affordable rate. Have you demonstrated this for each of the companies?
- A. Yes, in two different ways. First, in this case, the individually calculated proxy cost for each company exceeds the proposed affordable rate for that company. In addition, the weighted average proxy cost for the combined companies is greater than the weighted average affordable rate for the combined companies, thus demonstrating that the statutory test has been met.

DETERMINING LEVEL OF SUPPORT

Q. The statute requires in determining the level of support to be received that federal support funds received by the companies must be taken into account. Have you performed this analysis?

- A. Yes, IITA Exhibit #2, Attachment #5, displays the calculation of support amounts using the economic costs that have been developed, the proposed affordable rate and the federal support fund received by the companies.
- Q. Could you explain Attachment #5 in greater detail.
- A. Yes. Using the actual company access lines and the difference between the economic cost and affordable rate developed in Attachment #5, I have calculated the total potential annual support amount. I have then subtracted from that the federal support funds received by the company to arrive at the IUSF eligibility amount based on an individual company cost determination.
- Q. Please describe in greater detail the amounts included as federal support funds?
- A. These amounts are calculated from three different sources. First, at the federal jurisdiction, 25% of local loop costs are assigned to the carrier common line (CCL) revenue requirement for cost settlement companies with an equivalent amount being assigned for average schedule settlement companies. Funding for this CCL revenue requirement comes at the federal level from several different sources. These include the federal end user common line charge, or EUCL, carrier common line charges billed to interexchange carriers, the long-term support portion of the federal USF, and net settlements with the National Exchange Carrier Association's CCL pool (either positive or negative) to equal the CCL revenue requirement. The amounts included for the CCL revenue requirement are the latest estimates of 2000 actual amounts. Second, many companies receive federal high cost loop support from the federal USF. These

amounts have been included as federal support amounts by annualizing the Fourth Quarter, 2000 amounts posted by the Universal Service Administration Company ("USAC") on their web page. Third, all the small Illinois companies receive federal local switching support from the federal USF. These amounts have also been included by annualizing Fourth Quarter, 2000 estimated amounts posted by USAC on their web page.

- Q. Can you summarize the results of Attachment #5?
- A. Yes, on an individual company basis, all but four of the companies show some level of need for state USF funding. Using the statutory proxy cost criteria, in summary, the analysis shows a potential IUSF funding support requirement of over \$73 million for the Illinois small companies as a group. This demonstrates that the "economic cost" substantially exceeds the proposed affordable rate and the federal support for the companies as a whole. It further demonstrates that using the proxy cost approach as contained in the statute, the small Illinois companies, as a group, would be eligible for receiving that amount of IUSF funding and that each company should be eligible for such funding.
- Q. Is the IITA proposing that this full funding eligibility be implemented in 2001 or in the future?
- A. No, it is not. The results of developing the economic cost for the companies, using the forward-looking model and making the other adjustments as required by the statute, produces a result which is well beyond the needs of the small Illinois companies in total. These results emphasize the potential discontinuity between

forward-looking costs and the actual embedded costs of the companies. In addition, as discussed earlier in my testimony, results of this analysis, when compared with the analysis that will be presented hereafter, shows the discontinuity that can result for individual companies because of the infirmities of the forward-looking models and techniques.

As discussed subsequently in my testimony, the rate-of-return showing required by the Commission will determine the size of the fund, the companies qualifying for IUSF support and the amount of the support on an individual company basis. That limitation makes the HAI results virtually meaningless but for the "economic cost" requirements of the statute for the Illinois small companies as a group. In any event, the Commission, the Hearing Examiner and all parties should understand that the IITA is not advocating the creation of an IUSF in the amount set forth on Attachment #5.

- Q. What additional steps is the IITA proposing should be taken in determining the funding to be provided by the IUSF?
- A. In its November 21, 2000 Order in these dockets, the Commission expressed its intent that IUSF funds should not be provided to companies until some type of showing is made that the company is "in need" of receiving such funding. The clear intent of the Order was to include an evaluation of a company's current earnings position, without IUSF funding, to see whether the company needs such funding to maintain an appropriate earnings level. While such a requirement is

clearly not included within the statutes dealing with the IUSF, the IITA understands that such a test will be conducted to determine the level of IUSF funding a company can receive. This is being done to comply with the Commission's expressed desires and to provide the information the Commission has indicated it needs in order to implement an IUSF.

- Q. How will this be done?
- A. The IITA and the Staff have held extensive discussions to develop a simplified process for conducting such an analysis within the time constraints of this proceeding. As a result of these discussions, the IITA and the Staff are near agreement on a simplified filing process and form based primarily on data available from a company's annual financial report that will demonstrate the funding need a company may have for IUSF funding to maintain a reasonable rate-of-return. The IITA and Staff have also arrived at an agreed upon rate-of-return for the small companies to use for this determination.
- Q. Can you describe the general process being discussed by the Staff and the IITA.
- A. Yes. The process and form that have been agreed to is the development of an individual company revenue requirement based on a simplified procedure which is contained in the form developed by the two parties. Generally, it is based on actual total company 2000 financial results as reported to the Commission on Form 23A or other suitable annual financial reports acceptable to the Commission. Included in the form are the opportunity to make certain adjustments to the results to reflect known changes to the financial results. The

form also includes an adjustment to remove the support amounts received during 2000 from the IUSF and from the DEM Weighting Fund. The form compares the company's embedded cost revenue requirement with the return level agreed to between the Staff and the IITA and calculates the funding needed from the IUSF in the future to achieve this reasonable return. That amount would be the amount of IUSF funding that the company would be entitled to under the new IUSF fund.

- Q. You indicated that there is an agreement between the Staff and the IITA regarding the return on rate base level that should be used in making this calculation. Can you describe that agreement.
- A. Yes. The IITA and Staff discussed the major elements that go into determining a rate-of-return on rate base. Because of the limited time to complete this proceeding before the DEM Weighting Fund expires, the two parties agreed that it would be prudent to arrive at a rate-of-return that could be used for all the companies based on general financial parameters rather than detailed studies of each company's specific circumstances. After a number of discussions, the two parties agreed upon a set of factors that would be used to determine the rate-of-return. These included a hypothetical capital structure of 40% debt and 60% equity, a current cost of long term debt of 9% based on current Rural Telephone Finance Corporation quoted lending levels, and a cost of equity of 15% and 13.8% for the non-Frontier small companies and Frontier companies respectively. It was also agreed that since the form developed to evaluate the earnings did not include interest cost in the calculation of income taxes that an after tax cost of

- debt would be used in calculating the overall rate-of-return to be used in the earnings analysis form.
- Q. How do you see this analysis being presented in determining the IUSF funds that should be provided to the small companies under the new IUSF?
- A. It is my understanding that each of the companies that desire to receive funding from the new IUSF would need to complete the earnings evaluation form and demonstrate that on an embedded cost basis their earnings, absent the receipt of the current IUSF and DEM Weighting Funds they receive, would be less than the agreed upon overall rate-of-return. Such companies would be eligible to receive IUSF from the new fund sufficient to bring them to the agreed upon earnings level.
- Q. Are you presenting evidence regarding the companies who will be requesting IUSF from the new fund and the overall amount of the fund?
- A. Not at this time. The agreed upon procedure is based upon the annual financial report to the Commission. In order to provide the latest available data, the parties have agreed to a procedural schedule, which would have this data filed on April 20, 2001, shortly after many companies file Form 23A with the Commission. The earnings analysis can thus be based on year 2000 data. Individual companies eligible for and desiring to request funds from the new IUSF will be submitting the appropriate data in an April 20, 2001 filing in these dockets. I will be providing a summary of the requested amounts at that time.

- Q. I presume then that you cannot provide any hard data at this time on the size of the new IUSF fund. Do you have an idea regarding the potential size of the fund?
- A. While you are correct that I do not have hard data at this point in time, some preliminary analysis was done using 1999 data and an earnings evaluation process similar to that agreed upon with the Staff. Based on that analysis, I expect that while many companies will be requesting IUSF funding, others will probably not. Furthermore, based on that analysis, I would anticipate that the requested funding will be less than the current IUSF funding levels.
- Q. Are there actions during the duration of these dockets that could change this analysis?
- A. The primary thing I can think of would be a significant change in the companies' access rates as a result of the current policy of mirroring federal rates combined with some significant change in federal access policies. Currently, the FCC has under consideration two major proposals that could cause significant changes in federal access rates. Both the RTF Recommendation and the Multi-Association Group ("MAG") proposals before the FCC contain provisions for reducing federal access charges with an offset to the lost access revenues from increases in federal universal service funds. Should either of these proposals be adopted with a resulting significant reduction in federal access charges and with intrastate access rates reduced pursuant to the current mirroring policy, companies' earnings levels could be significantly impacted. While I do not anticipate this occurring before

- the April 20, 2001 filing date, there is a good possibility that the FCC's review of the RTF Recommendation will be completed while these dockets are in progress.
- Q. Is the IITA concerned about the potential impacts that such changes could have on the small Illinois telephone companies?
- A. It certainly is. Consideration has been given and discussed with the parties on how best to address this issue in Illinois. There has been no agreement regarding the best way to do that, although several parties have expressed significant concerns about addressing it in these dockets. The IITA is not specifically addressing a proposed solution to this potential problem at this time and is continuing to consider how it should be addressed before the Commission. The IITA does, however, want to put both the Commission and the parties to this case on notice that if such a change in state access charges would result from changes in federal access rate policies, the resulting financial impacts, using the procedures discussed above to determine the IUSF funding in response to expressed policies of the Commission could directly impact the future size of the IUSF and/or require a different solution.
- Q. Once the IUSF funding amounts are developed in this proceeding, does the IITA have recommendations as to how often these amounts should be reviewed?
- A. Yes. We would recommend that, in general, they be reviewed relatively infrequently, such as on a three to five year timetable. This will limit the administrative and litigation costs that could be involved in a more frequent update process. It would provide stability to the companies and an environment

favorable to investment in new facilities since revenue streams would be stable over a mid-range time period. For the payers into the fund, it would provide relative stability in the amount of funding that would be required and would also limit the administrative and litigation costs associated with maintaining the fund.

- Q. Are you proposing that the fund be frozen during this three to five year time period?
- A. No. Since the funding is being limited to amounts necessary to achieve a reasonable rate-of-return, if industry policy changes at either the state or federal level cause changes in the companies' revenue streams, this proceeding should be reopened or a further proceeding should be held to evaluate future IUSF funding in light of the changed circumstances. A significant change in state access rates as a result of changes in federal or state access rate policies could trigger such a reevaluation, for example.

Individual companies may have changes in circumstances impacting their overall earnings during this time period that would provide an appropriate rationale for a company on an individual basis to seek a modification in USF funding. In light of the rate-of-return constraint being imposed in this proceeding, the companies so affected must have the right to make the necessary filings to have their change and circumstances addressed. I would contemplate that such a request would be conducted before the Commission in a manner that would allow all affected parties to participate with regard to the determination of the companies' IUSF needs and the overall impact on the IUSF funding.

IMPLICIT SUBSIDY REQUIREMENT

- Q. You indicated earlier that the statute contains a requirement for determining implicit subsidies, specifically, that any subsidies in interexchange carrier access rates should be identified before implementing an IUSF. How do you interpret this requirement?
- A. I believe it means that the IITA must identify such subsidies, if any, that are contained in their interexchange carrier access rates. Such an identification can be made by comparing the current revenues with the "economic cost" of the interexchange carrier access rates. If the current revenues are equal to or less than the economic cost, there clearly would be no such implicit subsidy within those rates. If the current revenue is greater than the "economic cost", there would be concerns as to whether the rates do, in fact, contain a subsidy.
- Q. Have you such an analysis to present?
- A. Yes, I do. This analysis has been prepared using the same "economic cost" studies that were prepared to develop the economic cost of the supported universal services. As part of the HAI Model output file, there is a "cost detail" tab that includes calculations of IXC switched access rates. The analysis I will present has been developed using the end office switching, ISUP (SS7) signaling, dedicated transport and common transport elements developed in the HAI Model. These rates have been multiplied by actual 2000 intrastate access minutes to develop the economic cost for access and compared to the intrastate access revenues received for those same minutes. The analysis is presented in IITA

Exhibit #2, Attachment #6. On an individual company basis, the schedule indicates that a majority of the companies' access rates contain no subsidies. However, for a number of companies, the current revenues are greater than the "economic cost" developed for that company through the HAI model process. While this suggests concern that the rates might contain some subsidies, it does not, by any means, fully demonstrate that. Additional studies to show the stand alone cost of these services would be needed to fully identify whether there are subsidies in these rates. The IITA has not conducted such studies, and believes that they are unnecessary due to the proxy cost provisions of the statute. The Attachment shows that in summary, for all the companies, the economic cost of access, as developed by the HAI Model, are higher than the current access revenues for the companies as a whole. This demonstrates that there is no implicit subsidy, in total, in the access rates of the small Illinois ILECs, thus meeting the statutory test.

FUNDING MECHANISM

- Q. What are the statutory requirements regarding the funding mechanism?
- A. The statute requires that the funding for the IUSF be recovered from all interexchange carriers and local exchange carriers certificated by the Commission in a competitively neutral manner.
- Q. Does the IITA have a proposed method for assessing the funds against these carriers?

- A. No. The IITA is aware of the sharp debate that took place in Phase 1 of this proceeding between Ameritech and Verizon, on one hand, and AT&T and the other interexchange carriers, on the other hand, regarding funding methodologies. The IITA believes that these parties can articulate the two major approaches to funding as they did last time and give the Commission information needed to distinguish between these two major methodologies.
- Q. If the Commission gives consideration to the approach proposed by AT&T in the previous phase of this proceeding (a surcharge on end user revenue), are there features of such an approach that the IITA believes are important?
- A. Yes, the IITA believes that the basis for funding should be the intrastate end user retail revenues of the certificated carriers described in the statute under this general approach. Use of end user retail revenues is much fairer to the end users of the various carriers than the method proposed in the previous phase by MCI/WorldCom, the use of total revenues less payments to other carriers. The IITA would also recommend under this type of approach that the funding be based on current revenue levels rather than prior year levels. The use of current revenues allows the carriers to apply the surcharge level determined by the Commission directly to end user revenues without the necessity of making adjustments to account for changes in revenue levels between the assessment period and the collection period. The IITA would also recommend under this type of approach that the revenue base, against which the assessment is applied, excludes any revenues collected to fund the IUSF. The fund administrator should, as part of its duties, determine the total funding basis from the certificated carriers

and an assessment rate to be applied to the funding basis in order to generate the required support funds. This rate should be reviewed and approved by the Commission. As circumstances change, the administrator should propose changes to the assessment rate, as needed, to continue an adequate and appropriate level of funding.

FUND ADMINISTRATION

- Q. Does Section 13-301(d) contain any specifications regarding the fund administrator?
- A. No, it does not. The IITA believes, though, that it would be appropriate for the administrator of the Section 13-301(d) fund to be a neutral third party administrator as is required in Section 13-301(e). To facilitate initial implementation of the fund in the very short time that will be available, the IITA recommends that the ISCECA be appointed as the initial administrator of the fund.

IMPLEMENTATION/TRANSITION ISSUES

- Q. Does the IITA have concerns regarding the anticipated transition between the current IUSF and DEM Weighting Funds and the new IUSF fund?
- A. We do. Pursuant to the Commission's Order in Docket No. 98-0679, the DEM Weighting Fund will terminate no later than September 30, 2001. The current procedural schedule in these proceedings anticipates a Commission Order sometime in September, 2001, only a few days before the DEM Weighting Fund terminates. Depending on the decisions made by the Commission in that Order,

- there will be very little time to effect implementation in order for funding to the new fund recipients to commence in October, 2001.
- Q. What are some of the factors that could impact the ability to implement the Order quickly?
- A. The funding method chosen would have a significant impact. If a new funding methodology is chosen, it may take time to gather data both in regard to the funding base and to the level of funding required to calculate funding assessment levels. If funding is based on an end user surcharge, it takes time to implement such charges in billing systems, to await the payment of funds to the company and to effectuate payment from the companies to the fund administrator in order for the administrator to have funds available to make disbursements. Depending on the Commission's decisions, these steps will not necessarily be able to be completed in just a few days.
- Q. Have the parties discussed steps that could be taken to alleviate this concern?
- A. In the workshop held on March 9, 2001, the parties did discuss this concern and agreed to hold a further workshop in June to attempt to address this issue and minimize the problem. The IITA encourages this process and will fully participate in it. However, it may be that the best efforts of the parties can only somewhat shorten the implementation period, not completely eliminate it. If that is the case, there may be other steps necessary in order to avoid a discontinuity of funding.

- Q. Does the IITA have any specific proposals at this time to deal with this potential problem?
- A. No, it does not. However, the IITA feels that it is important to put the parties and the Commission on notice that this transition problem could occur and to alert them that some type of temporary measures may need to be adopted to address this concern.
- Q. Could you summarize your testimony, please.
- A. Yes. Pursuant to an Order of Commission, the Illinois DEM Weighting Fund will terminate no later than September 30, 2001. Current recipients of support from this Fund and the current IUSF will experience substantial losses of revenue unless that funding is replaced by the proposed new IUSF. The IITA has presented evidence to support the development of an IUSF under the provisions of Section 13-301(d) of the Act and to meet the requirements imposed by that Section. The IITA respectfully requests that the Commission approve the implementation of an IUSF as proposed so the Fund can be implemented effective October 1, 2001.
- Q. Does this conclude your testimony?
- A. Yes, it does.